

II. *The Rhynchophorous Coleoptera of Japan.* By
DAVID SHARP, M.B., F.L.S., F.Z.S., &c.

PART I. ATTELABIDÆ AND RHYNCHITIDÆ.

[Read November 7th, 1888.]

THE Rhynchophora brought by Mr. Lewis from Japan fifteen years ago were examined by M. Roelofs, and described by him in some papers that appeared in the 'Annales de la Société entomologique de Belgique,' 1874 and 1880. Since then Mr. Lewis has obtained a much more extensive collection, and, as M. Roelofs is not at present occupied with Entomology, I have undertaken the task of revising the collection by the assistance of this much richer material, and I now deal with the first two families, *Attelabidæ* and *Rhynchitidæ*.

I was surprised to find, on examining the first of these groups, that they form an exception to the other Rhynchophora in the structure of the prosternum: Leconte recently drew attention to the importance of this part of the body as a means of separating the Rhynchophora from other Coleoptera, and it is very curious that he should not have noticed that this family, which he correctly placed at the commencement of the series, differs from his definition of Rhynchophora in this important particular.

In order to define the structure of the prosternum in these insects, I have been obliged to make use of a new term, which I must explain. If the prosternum of one of the larger Apostasimeride Rhynchophora be looked at—*Homalonotus*, for example—it will be found that there are three pieces in the antero-posterior direction of the mesial line—1, the prosternum proper; 2, a piece rather small in size and usually rhomboidal form, for which I find no existent name, and which I have called the centro-sternal piece; 3, the prosternal epimera, joined on the mesial line by a suture more or less obliterated. This same structure may be seen in the Synmerid

Rhynchophora; here the prosternum is interrupted behind by the cotyloid depressions, behind which may be seen the centro-sternal piece, of variable size according to the genus examined, and behind this again the conjoined epimera. In *Attelabidæ* the centro-sternal piece is absent, and it is clear from what we may see in the next family—*Rhynchitidæ*—that it is by this piece that the apices of the epimera are widely separated, the sutures, however, being greatly obliterated. In *Rhynchitidæ* the structure differs by the centro-sternal piece being nearly always very small, and placed just behind the coxæ, penetrating to a greater or less extent between the apices of the epimera, and in some genera entirely separating them. Thus this family shows that, so far as the prosternal structure is concerned, no sharply-marked distinction exists between Coleoptera with the apices of the prosternal epimera conjoined and Coleoptera with them separated. This exceptional character* in the *Attelabidæ* and *Rhynchitidæ*, combined with the straight antennæ, and the absence of mechanical apparatus in the gizzard (*cf.* Lindeman, Bull. Mosc. li., 1876, p. 161, &c.), indicate that these two families are correctly placed at the commencement of the Rhynchophora.

The habits of the species of *Rhynchitidæ* are very varied, and some of them exhibit very remarkable instincts; and it is therefore interesting to find that the details of their external structure are as varied as their instincts. The fact that there exists so much discrepancy in their structural details, however interesting it may be from a biological point of view, certainly renders the establishment of natural genera a very difficult matter. The form of the rostrum, the structure of the ventral segments and pygidium, and the structure of the hind parts of the prosternum, all vary somewhat from species to species; so that if the genera be founded on any one of them exclusively, the line of division chosen will necessarily be a more or less arbitrary one: by giving attention to more than one character, the genera may, I think, be perhaps made more natural, as it frequently happens that in a species where one character diagnostic of the genus is feeble, a second exists in undiminished

* I do not mean by this that these are the only Rhynchophora in which this character exists; and indeed there are others in which the apices of the epimera are not conjoined.

degree. Pascoe has frequently remarked that the genera of Rhynchophora are very difficult to deal with on account of the gradual variation of the minor structural characters from which the generic definitions are drawn. This is certainly true in the case of the *Rhynchitidæ*, and, as we are acquainted with only a very small portion of the species existing in the tropics, it is difficult for us to guess where the lines of generic limitation may ultimately best be drawn; so that it is advisable to be cautious in establishing new genera at present, though I fancy that ultimately the genera will have to be considerably increased in numbers.

ATTELABIDÆ.

This family forms an exception to what is normal in the Rhynchophora, owing to its prosternal epimera being widely separated by an interposed piece, to which the epimeral apices are soldered. In this respect it is somewhat similar to *Baridiidæ*, from which group it differs strongly in other particulars, especially by the contiguous and exerted front coxæ, and by the straight antennæ.

APODERUS, *Olivier*, Ent., No. 81, p. 2.

ATTELABUS, *Bedel*, Faune Col. Seine, vi., p. 22.

This genus is peculiar to the Eastern Hemisphere, where it is largely represented by a great number of species in the tropical regions from Madagascar to the Philippine Islands; outside of the tropics the species become less numerous: and Europe possesses no peculiar species, though two or three of the Siberian and eastern species have extended their range to geographical Europe. Japan has, however, fifteen species and several varieties, so that its fauna is, in respect of this genus, Oriental rather than Palæartic in character.

The species of this genus are very difficult to limit by definition, owing to the variability in colour of many of them, to the frequent great difference between the sexes, and to the fact that some of the male characters vary extremely in the degree of their development. The Japanese species may, however, be grouped in a way that considerably facilitates the determination of the species.

- I. *Antennæ of male provided at the apex with an acuminate appendage; head of male of variable length, according to the individual, and in all the species (except A. fulvus) with a cylindrical portion in front of the thoracic articulation.*

This is the only group in which the antennæ have an acuminate appendage; it is very conspicuous in the male sex, and even the females have the termination of the antennæ more acute than they are in the species of the other groups.

Apoderus longicornis.

Apoderus longicornis, Roelofs, Ann. Ent. Belg., xvii., p. 131.

Mr. Lewis has brought back a series of twelve examples of this elegant insect, but all are males; they were procured in several localities, and vary much in the elongation of the head and antennæ, but the coloration of the latter part is constant. The females obtained by Mr. Lewis on his previous journey, and assigned to this species, I am quite unable to distinguish from *A. fulvus*; and the female of *A. longicornis* is perhaps unknown to me. As the two species are extremely closely allied, except in the male characters, it may prove that the females are similar in nearly all respects; but I should anticipate that the black basal joint of the antennæ may be a good diagnostic character.

Found on the main island.

Apoderus nigricollis.

Apoderus nigricollis, Roelofs, Ann. Ent. Belg., xvii., p. 131.

A. montanus, Roelofs (nec Jekel), Ann. Ent. Belg., xvii., p. 134.

A. nigricollis was described by M. Roelofs from three male examples. Mr. Lewis has now met with the species on white beech at Wada-togè, and also in other localities. The male varies much as to the elongation of the head and antennæ, but the species may be readily distinguished in each sex from *A. longicornis* by the coarse sculpture of the upper and under surfaces. *A. montanus* was described from a single female example, and it

proves to be the other sex of the species whose male only was described, as above mentioned.

Apoderus roelofsi.

Apoderus roelofsi, Har., Deutsche. Ent. Z., 1877, p. 358.

Extremely similar to *A. erythropterus*, var. *atricolor*, but easily distinguished by the more elongate head and antennæ, and by the hind tibiæ being nearly straight externally at the apex. The male varies greatly in size, and in the elongation of the head and antennæ, and in the smallest specimens of this sex the head differs from that of the female only in being less inflated, and in being provided with a very short cylindrical neck behind. Faust, in Deutsche. ent. Z., xxvi., p. 292, has described an *Apoderus coloratus* from Wladiwostock, which he says is closely allied to *A. roelofsi*, but differs in having the hind body flavescent: that would scarcely be a sufficient character to distinguish the two; and I am in some doubt about Faust's species, because he further remarks that the female can be distinguished from the female of *A. nitens*, Roel., *only* by the flavescent hind body; but if *A. coloratus* is allied closely to *roelofsi*, then it may be distinguished with complete certainty from *A. nitens* in each sex by the shape of the lower part of the hind tibia.

A. roelofsi was met with by Mr. Lewis at several localities on the main island, and also at Hakodate, but only in a few examples.

Apoderus fulvus.

Apoderus fulvus, Roelofs, Ann. Soc. Ent. Belg., xvii., p. 130.

The elongation of the head and antennæ in the male of *A. fulvus* is a variable character, and, as the slender posterior portion of the head in the male is not abruptly defined, but is only a gradual attenuation, the species is very difficult to place, and forms, in point of fact, a quite natural transition between Groups I. and II.

Found only in Kiushiu.

- II. *Antennæ without acuminate appendage; hind tibiae nearly straight at the extremity behind; clytra simply punctate-striate, without humeral denticles or discoidal tubercles; head slender, almost conical, but little different in the two sexes.*

These characters are chiefly negative, but the group is a quite natural one.

Apoderus præcellens, n. s.

Niger, politus, nitidus, antennis tibiis tarsis femorumque posteriorum basibus flavis, corpore supra et infra variabiliter flavo-variegato; prothorace conico, elytris seriatim subtiliter punctatis. Long. 7 mm.

Mas; pectore prominulo, mesosterno anterius in medio fisso et utrinque tuberculo conico instructo; segmento ultimo ventrali medio profunde impresso, impressione utriusque cristato, crista setosa.

Head similar in the sexes, conical, gradually narrowed from the eyes to the articulation with the thorax, polished and shining. Thorax very smooth and shining, almost conical, with the disc rather more inflated and convex in the female than it is in the male. Elytra very shining, with regular series of punctures that become very fine behind, the interstices flat and without sculpture.

The remarkable male characters make the identification of this species easy. Usually there is a series of transverse yellow marks across the elytra, a flavescient mark behind the eye and on the base of the thorax, and the ventral segments are more or less flavescient in the middle; but these yellow markings are variable: in none of the specimens before me do they assume, however, the position they occupy in *A. carbonicolor*, Motsch. According to Faust, in *Deutsche. Ent. Zeit.*, xxvi., p. 293, *A. carbonicolor* must be a species allied to *A. præcellens*, and its male likewise presents a curious conformation of the last ventral plate.

Oyama and Nikko, in shady places in the forests.

Apoderus balteatus.

Apoderus balteatus, Roelofs, *Ann. Soc. Ent. Belg.*, xvii., p. 135.

I have seen but few specimens of this species, and cannot speak as to its variation.

Found in Kiushiu.

Apoderus rufescens.

Apoderus rufescens, Roel., Ann. Soc. Ent. Belg. xvii., p. 135.

This was described by M. Roelofs from a single female. Mr. Lewis has now obtained a small series which I refer to the species with very little doubt, although none of the specimens quite agree with the type; they are all considerably smaller, and nearly all are males; the two or three females have the head slightly shorter than in the typical example. I think it probable that all are one species, the original specimen being a very large individual. This being the case, I find there is very little difference between the sexes of *A. rufescens*, but the male has the head and antennæ slightly longer. The under surface is variable in colour, being more or less streaked with black.

Found at various localities in the main island. M. Roelofs gives Hakodate as the locality of his type, but it is labelled Awomori.

III. *Elytra with acute denticle at the sides just behind the shoulders; head short, scarcely different in the sexes.*

The minute tubercle is the character of this group, but the species are in several other respects quite different from those of the other groups, being of short form, with short antennæ, and frequently having the disc of the elytra furnished with a pair of prominent tubercles. The group may be treated as equivalent to Jekel's subgenus *Hoplapoderus*.

Apoderus latipennis.

Apoderus latipennis, Jekel, Ins. Saund., ii., p. 179.

A. latipennis is apparently a common insect in the main island of Japan, and was procured in several localities.

Apoderus subornatus, n. s.

Brevis, latus, niger, sat nitidus, antennis pedibusque flavis, femoribus posterioribus ad apicem nigris; prothorace disco subtiliter rugoso, lateribus pone humeros denticulatis, disco tuberculis duobus magnis, ad basin dense subtiliter punctatis, ad apicem fere lævigatis. Long. $7\frac{1}{2}$ mm.

Very closely allied to *A. latipennis*, but larger and broader, and readily distinguished by the very large size of the tubercles on the elytra, and the greater development of the sculpture both of the upper and under surfaces.

Both *A. latipennis* and *A. subornatus* vary a little in their sculpture, especially that of the thorax; but, having examined a considerable number of examples from various localities, I have little doubt of the two being distinct species.

Found at Sapporo and Junsai, on "a low plant," in the island of Yezo, and likewise inhabits East Siberia, as I have a pair from Amurland in my own collection, and there is an example in our national collection from Siberia, labelled *latipennis* by Jekel. *A. latipennis* is recorded in the catalogues of Siberian Coleoptera, but it is probably in error for the present species, as it now appears probable that *A. latipennis* is a more southern insect.

Faust, in his paper on Siberian Curculionidæ, in *Deutsche Ent. Z.*, xxvi., speaks (p. 295) of *A. latipennis*, Jek., with which he says *A. flavimanus*, Motsch. (Schrenck, *Amur Reise*, p. 171) is identical. I have no means of knowing whether Faust referred—as appears probable—to the species I am now discussing; but Motschoulsky's few remarks do not amount to a description, and do not apply very well to this species, as he says nothing about the dense punctuation of the anterior parts of the wing-cases and other peculiarities.

Apoderus vitticeps.

Apoderus vitticeps, Jekel, *Ins. Saund.*, ii., p. 184.

Hoplapoderus Van Volxemi, Roelofs, *C. R. Soc. Ent. Belg.*, xviii., p. cxxxi.

Apoderus tuberculatus, Harold, *Deutsche Ent. Z.*, 1878, p. 85.

This remarkable species is very variable in colour, no two specimens being quite alike, and the upper surface in extreme specimens has the yellow marks so reduced that it may be described as quite black. The sculpture varies but little, and I entertain no doubt as to the correctness of the above synonymy.

Rare; but occurs on the main island, and on Yezo. Yokosuka, Miyanoshta, Junsai, and Sapporo.

Apoderus pardalis.

Apoderus pardalis, Vollenh., Tijd. Dierkunde, ii., 1865,
p. 164.*

A. tigrinus, Roelofs, Ann. Soc. Ent. Belg., xvii.,
p. 136.

This species, like so many others of the genus, varies greatly in colour; the black spots of the upper surface extend and coalesce, so that it becomes nearly all black; the lower surface also varies in colour, but not correlatively with the upper, some examples that are quite black beneath having the black spots on the upper surface small.

Kiushiu and main island.

IV. *Hind tibiæ strongly arcuate at the extremity.*

The elytra in this group are regularly punctate in striæ, and the sexual disparity is but slight.

Apoderus erythropterus.

Attelabus erythropterus, Gmel., ed. Linn., 1788, p. 1809.

A. intermedius, Hellw., Schneid. Mag., v., p. 615.

A. politus, Gebl., in Humm., Ess. Ent., iv., p. 50,
No. 12 (*vide* Schönherr).

Var. *elytris nigris*.

Apoderus nitens, Roelofs, Ann. Soc. Ent. Belg., xvii.,
p. 133.

A. erythropterus, var. *atricolor*, Faust, Hor. Ent. Ross.,
xxi., p. 28.

Var. *niger*, pedibus abdomineque fulvo-testaceis.

Apoderus erythrogaster, Vollenh., Tijd. Dierkunde, ii.,
1865, p. 165.

A. rufiventris, Roelofs, t. c., p. 135.

Var. *thorace ex parte rufo*.

A. bicolor, Redtenbacher, Reise Novara, Col., p. 161.

Var. *rufus*, capite antennis pedibusque nigris.

A. minimus, Roelofs, t. c., p. 136.

Var. *niger elytris cyaneis*.

* The paper on *Apoderus*, in which this species was described has escaped the notice of the authors of the Munich Catalogue of Coleoptera, and of subsequent writers. It is recorded in Zoologica¹ Record I., 1864, where, however, the date is wrongly given.

After examination of a considerable series of specimens, I can find no characters to distinguish the above forms except colour, and this no doubt is variable, as it is in the well-known *A. coryli*, which runs through an analogous series of colour variations; intermediate individuals are, however, rare, but still they do occur, and I have several such before me.

A. bicolor, Redt., I am acquainted with only by the description, and by Faust's note in Hor. Ent. Ross., xxi., p. 28; this colour-variation has not occurred in Japan as yet, but I mention it because it appears to be the form intermediate between the typical *A. erythropterus* and the Japanese var. *minimus*, Roel.; while the variety recorded by Redtenbacher, with thorax entirely red, is no doubt the same as *A. minimus* itself.

The typical form of *A. erythropterus* is very rare in the parts of Japan visited by Mr. Lewis; he, however, obtained two examples of it at Seba, July 30th, 1881, agreeing entirely with Siberian examples, and with them he obtained two examples with the elytra intermediate between black and red in colour.

A. erythrogaster differs strikingly in the colour of the legs and ventral segments; the colour of the latter parts is, however, very variable in the var. *niteus*, so that I attach no importance to it; and the colour of the legs is so variable in some other species of the genus that I do not think it proper to rely on it alone as a specific character.

Apoderus geminus, n. s.

Niger, nitidus; elytris rufis, regulariter et fortiter seriatim punctatis, interstitiis subconvexis, crebre punctulatis. Long. 4—6 mm.

This is possibly only a variety of sculpture of *A. erythropterus*, but deserves even in that case a separate name; the serial punctures being as deeply impressed on the apical as on the basal portion of the elytra, and the interstices more convex and closely punctate.

A small series was obtained from Kiga, Nikko, and Miyanoshita, on *Lespedeza*.

V. *Elytra with dense sculpture, amongst which are series of coarse punctures, the third interstice broader than the others, and possessing behind the middle an elongate group of irregularly-placed coarse accessory punctures. To this group belongs the well-known European A. coryli.*

Apoderus jekelii.

Apoderus Jekelii, Roelofs, Ann. Soc. Ent. Belg., xvii., p. 132.

This species is variable in colour, the wing-cases being sometimes concolorous with the other parts of the body, so that the insect is quite black. The male characters vary but little in the small series before me. The species lives on oak, and has been found in Yezo, as well as in the main island and Kiushiu.

Apoderus uniformis, n. s.

Niger, prothorace margine basali elytrisque rufis, his minus nitidis, fortiter seriatim punctatis, interstitiis punctulatis tertio pone medium lato punctis adjectis numerosis. Long. 8 mm., elytrorum 5 mm.

Very similar to *A. jekelii*, but smaller, and with the elytra of a rather brighter red colour, and their sculpture rather more regular and less coarse; but best distinguished by the shorter thorax, and by the male being scarcely different from the female. It is equally close to the European *A. coryli*, but is rather more slender than that species, and has the serial punctuation of the elytra more definite, and the difference between the sexes less. The male of *A. uniformis* has the head just perceptibly longer than the female, and the thorax considerably more conical; the female has the vertex much more convex than it is in *A. coryli*.

The male is readily distinguished from the corresponding sex of *A. jekelii* by the very short head; the females of the two species are very similar, but that of *A. uniformis* has a shorter, more globose, head, and a narrower thorax, with the sides less constricted in front. There is scarcely any difference between the antennæ of the two sexes of *A. uniformis*.

Found at Oyama and Nikko in May and June by

sweeping the undergrowth in shady glens. Eight examples were obtained, six of them being males.

Species of uncertain position.

Apoderus cyanopterus.

Apoderus cyanopterus, Motsch., Et. Ent., ix., 1860, p. 22.

This is unknown to me, but I expect will prove to be a blue variety of *A. roelofsi*. The description agrees with that species except in respect of this one particular. Blue varieties of *A. nitens* occur rarely: at present I have seen only very few specimens of *A. roelofsi*, but think it probable that individuals with blue upper surface may likewise occur in it.

ATTELABUS.

ATTELABUS, *Olivier*, Ent., No. 81, p. 4.

CYPHUS, *Bedel*, Faune Col. Seine, vi., p. 23.

The origin of this genus is usually attributed to Linnæus, and in the Munich Catalogue of Coleoptera (viii., p. 2479), the edition xii., 1767, is cited for it. The genus was, however, to the earlier authors, nothing but a name for an unnatural and heterogeneous group of insects of diverse genera, and even families. It is better, therefore, to credit the genus to Olivier, who was the first to bring it into a satisfactory condition. This he did in the year 1807, and since then his nomenclature and characters have been universally accepted. Quite recently Bedel has found in the fact that by the earlier authors various genera were mixed under *Attelabus* a pretext for changing the names, and rendering the entomological literature of the last 80 years—so far as it relates to these insects—useless, or worse than useless, some hundreds of synonyms being created by this apparently simple change. The 100 species at present called *Apoderus* are each and all to become *Attelabus*; the 100 species of *Attelabus* are each and all to become *Cyphus*; and the thirty species of *Cyphus* are to become *Neocyphus* (Bedel). In addition to this the numerous genera and subgenera of *Apoderus* and *Attelabus* described by Jekel will become a means of rendering the confusion more confounded. Jekel adopted the plan of

naming many of these divisions by a prefix to the common generic name, using, *e. g.*, *Hoplapoderus* as a subgenus of *Apoderus*; *Heterolabus* as a subgenus of *Attelabus*; and so on. But if Bedel's change were accepted, *Hoplapoderus* would be a subgenus of *Attelabus*, and *Heterolabus* a subgenus of *Cyphus*. I reject the change proposed by Bedel as being a source of the greatest confusion, and as offering no advantage whatever to compensate for this.

Attelabus is widely distributed in the warmer regions of the world, and its species are specially numerous in Tropical America. Japan possesses, so far as we at present know, only three or four species, of which two are Chinese insects, and the other two have their allies in Eastern Asia far to the south.

Attelabus rufipennis.

Phialodes rufipennis, Roelofs, Ann. Soc. Ent. Belg., xvii., p. 138.

? *Attelabus rubripennis*, Chevrolat, C. R. Soc. Ent. Belg., xxi., p. xxxi.

Var. thorace vel ex parte vel in toto testaceo.

Phialodes distinctus, Roelofs, *l. c.*

This remarkable species appears to very variable in the colour of the legs and thorax. Of the few examples I have seen most are intermediate between the form with quite black, and that with quite yellow thorax.

Mr. Lewis procured a single example at Miyanoshita of a very small variety, with shorter antennæ and more obsolete sculpture; and I have a specimen in my own collection of another variety from Assam.

Chevrolat's diagnosis accords with this species except as regards the punctuation of the elytra.

Attelabus lewisii, n. s.

Niger, vertice, thorace, elytris femoribusque anterioribus læte rufis; oculis perconvexis, inter sese longius distantibus; thorace parce punctulato; elytris fortiter seriatim punctatis. Long. 6—7 mm.

Mas, pedibus anterioribus elongatis, tibiis curvatis.

Antennæ rather stout, with elongate, oblong, abrupt, compact, but evidently three-jointed club; rather widely separated at their

insertion, the longitudinal elevations between them short and slight; the eyes remarkably prominent, widely separated, in the male rather nearer to the apex of the rostrum than to the front of the thorax, the vertex in the female rather shorter, so that the eyes are in it rather nearer to the thorax than to the apex of the rostrum. Thorax but little punctate, with deep transverse channel in front of the base. Scutellum rather elongate and large. Elytra with regular series of punctures, coarse at the base, finer towards the extremity, interstices without sculpture.

Of this distinct species a good series was obtained, exhibiting no variation except that of the sexes. It is allied to the East Indian *A. discolor*, Sch., though very different in colour and sculpture. It also lives in Central China.

Attelabus cupreus.

Attelabus cupreus, Roelofs, Ann. Ent. Belg., xvii., p. 139.

This is apparently the nearest ally yet discovered to the Indian *Trachelolabus whitei*, Jekel.

Attelabus cœruleus.

Attelabus cœruleus, Jekel, Ins. Saund., ii., p. 202.

A mutilated specimen—not found by Mr. Lewis himself—is all the evidence I have seen to confirm this species as Japanese. It is, I believe, a rather common insect in Central and Southern China.

EUOPS.

EUOPS, *Schönherr*, Gen. Curc., v., p. 318.

This genus is looked upon by Lacordaire as doubtfully valid, the position of the eyes being, as he says, the only character given to distinguish it from *Attelabus*. This point is, however, not sufficiently constant either in *Attelabus* (inclusive of *Euscelus*) or *Euops* to serve as a means of distinguishing the two; but I find, on examining a series of species, that the sexual characters are peculiar in the female sex of *Euops*, so that the genus is a natural one. In the other genera of *Attelabidæ* the female is distinguished from the male by the possession of a second uncus on each of the tibiæ, but in the female of *Euops* this second uncus is not present. On the other hand, this sex possesses, in all the species I have

seen, a very peculiar character in the presence of a double row of erect pubescence on each of the basal three ventral plates.

Euops is peculiar to the extreme East, where it extends from Japan to Australia. The species are of small size, but some of them of very beautiful coloration.*

Euops splendens.

Attelabus (Euscelus?) splendens, Roelofs, Ann. Soc. Ent. Belg., xvii., p. 139.

The female of this species possesses the curious double ridges of pubescence on the middle ventral segments that exist likewise in the same sex in the Australian species of the genus. The eyes are not quite contiguous in *E. splendens*. Found on an oak; is not rare.

Euops lespedezae, n. s.

Attelabus lespedezae, Lewis, Cat. Col. Jap., No. 1601 (not described).

Niger, elytris violaceis, prothorace disco concentric punctato, elytris fortiter seriatim punctatis. Long. ♂—3½ mm.

The eyes in this species are not really contiguous, though at one spot they are as closely approximated as possible; the vertex is coarsely punctate; the prothorax is rather coarsely punctured in an irregular manner, the punctures on the disc being, as it were, elongated and arranged around a median space; there is a transverse impression across the middle more or less interrupted on the disc, and the basal transverse groove is deep. The scutellum is minute, viridescens. The elytra are of a beautiful dark violet colour, and are deeply punctate with regular series of punctures, which are deeper and coarser at the base than they are nearer to the extremity.

The sexual characters are the same as in *E. splendens*, except that the front tibiæ of the male are not so

* The largest *Euops* I have seen is *E. wallacei*, n. s. ♀. Læte cyaneus, subtus viridi-cyaneus, valde convexus; prothorace parce punctato, elytris regulariter seriatim punctatis, interstitiis paulo convexis. Long. (rostrum deflexo) 5 mm. Hab. N. Guinea (A. R. Wallace). Eyes contiguous, vertex subgibbous, club of antennæ elongate. Elytra of a very beautiful blue colour, the sides just behind the shoulders with an excessively minute acute prominence.

elongate, and that the prominence on the inner margin of the front tibiæ of the female is more abrupt and angular.

Lives on *Lespedeza sieboldi*.

Euops politus.

Attelabus politus, Roelofs, Ann. Soc. Ent. Belg., xvii., p. 140.

In the male of this species the eyes are at one spot as nearly contiguous as can well be; in the female they are very slightly more distant. The front tibiæ are feebly bisinuous on their inner margin, and there is but little difference between the sexes in this respect, the male tibiæ being, however, a little more elongate.

Euops phædonius, n. s.

Cyaneo-viridis, nitidus, prothorace parce punctato, elytris seriatim fortiter punctatis. Long. 4 mm.

Closely allied to *E. politus*, but of a darker colour above, larger in size, with much broader elytra, and certainly distinguished by the eyes being rather larger, so that they are quite confluent at their inner margins. There is but little sexual difference in the front tibiæ; in the female they are a little shorter and thicker, and feebly bisinuous along the inner margin.

A fine series has been brought back by Mr. Lewis. As in the other Japanese species of the genus, the thorax varies a little in its sculpture, but it is finer in *E. phædonius* than in any of the others.

? *Euops punctato-striatus*.

? *Attelabus punctato-striatus*, Motsch., Etudes Ent., ix., p. 22.

It would seem probable, from the size given by Motschoulsky, that his species is a *Euops* of the *E. splendens* group, but I cannot reconcile his diagnosis satisfactorily with either of the Japanese species before me, and it is by no means improbable that it may prove not to be a *Euops* at all.

Euops pustulosus, n. s.

Niger, supra æneo-niger; dense punctatus, thorace elytrisque tuberculis plurimis subelevatis. Long. 4 mm.

Very distinct from the other species of the genus by its peculiar sculpture, which recalls that of a small *Chlamys*. The thorax is densely punctate, but there are two large spaces in front of the base that are somewhat elevated, and are less punctate, and in front of these there are two or three obscure smaller elevations. The punctuation of the elytra is irregular, and each wing-case bears two longitudinal series of elevations that are not punctate. The eyes are contiguous at one small spot in each sex. The male has the front tibiæ rather more slender and elongate than they are in the female, and the truncature of the extremity of the middle tibiæ remarkably elongate.

A good series of specimens on a species of evergreen-oak.

RHYNCHITIDÆ.

This family, as well as the *Attelabidæ*, forms an exception to the normal mode of closure behind of the anterior coxal cavities. Nevertheless, in this respect it is very different from the *Attelabidæ*. In the former family the apices of the epimera are widely separated by a piece that I have called the centro-sternal piece; whereas in *Rhynchitidæ* the points of the epimera sometimes meet, but sometimes are separated by the centro-sternal piece, which latter usually remains small, being, however, larger in *Aderorhinus* than in any other genus in which I have observed it. This character, though variable in the family from species to species, appears to me to offer a valuable means of separating genera. Thus *Rhynchites* differs from *Deporaus* in having the apices of the epimera joined, they being separated by the interposition of the centro-sternal piece in *Deporaus*. This character necessitates the separation of *R. hungaricus* and *R. bicolor* auct. from the other *Rhynchites*, as they have the epimera separated at their apices, and I propose for them the name of *Merhynchites*.*

* *Merhynchites* nov. gen. *Rhynchitidis* affinis, sed prosterni epimeris apicibus a prosterno separatis. Rostrum elongatum. Pygidium haud occultum. To include *R. hungaricus* and *R. bicolor*, auct. The *R. bicolor* of Leconte, *Rhynch. N. America*, p. 7, consists of more than one species, as, on examination of two of his so-called "races," I find there are good structural characters to distinguish them.

BYCTISCUS.

BYCTISCUS, Thomson, Sk. Col., vii., p. 29; Bedel, Faune Col. Seine, vi., p. 24.

This genus is valid, though the character on which Thomson founded it is erroneous; the hind coxæ are not smaller than they are in *Rhynchites*, and the mode of articulation with the side piece of the metathorax is similar in the two genera; the first ventral plate is, however, lobed so as to cover and conceal the outer part of the coxæ. The genus has, however, been correctly defined by Bedel.

The genus seems most numerous in species in the Oriental regions; until comparatively recently it would have appeared to be more specially European: there are, however, only two species in Europe, whereas I now record five from Japan, and am acquainted with others from China, the Indo-Chinese Peninsula, and East India.

Byctiscus is a most difficult genus as regards the determination of its species. When I made my first study of the Japan collection, I thought too many species had been established in the genus; but a second study, after examination of what has been done by Faust, Roelofs, and others, has led me to believe that it is more probable that the species are rather numerous, but very variable as regards the colour of the upper surface. I am, however, far from entertaining any strong opinion on the point, as the specimens at my disposal are not sufficiently numerous; and, moreover, observations in the field are required.

Byctiscus motschoulskyi.

Rhynchites motschoulskyi, Lewis, Cat. Jap. Col., No. 1607 (not described).

? *R. betuleti*, Motsch., Etudes Ent., ix., p. 21 (not described).

Byctiscus congener, Faust, Deutsche Ent. Z., xxvi., p. 290 (nec Jekel).

Var. ?, elytris purpureo-plagiatis.

Rhynchites princeps, Solsky, Hor. Soc. Ross, viii., p. 284 (?).

R. regalis, Roelofs, Ann. Soc. Ent. Belg, xvii., p. 142.

I have little doubt, from Faust's remarks, that this is the species referred to by him, *l. c.*, as *R. congener*, but it is not the *R. congener* of Jekel, of which typical examples are in our national collection and my own collection (from coll. Saunders); thus it seems possible that the species may be in want of a description: this I do not make at present, as the Japanese examples before me vary so much that it is possible there may be more than one species amongst them; but the small series,—mostly females,—does not guide me to a conclusion. That the beautiful insect described by M. Roelofs as *R. regalis* is the same species as the larger green examples (*congener*, Faust) is not even quite certain to me, though it is clear that the colour is not of importance in distinguishing it. Under these circumstances I prefer not interfering with the nomenclature.

Byctiscus venustus.

Rhynchites venustus, Pascoe, Ann. N. H. (4), xv., 1875, p. 393.

R. haroldi, Roelofs, C R. Soc. Ent. Belg., xxii., p. liii; and Ann. Soc. Ent. Belg., xxiv., p. 17.

This beautiful insect is extremely variable in the colour of the upper surface, and some of its examples, at first sight, appear almost similar to *B. motschoulskyi*, but *B. venustus* may always be distinguished by the purple-violet colour of the under surface, legs, and scutellum. I have little doubt *R. haroldi*, Roelofs, is this species, although it would be inferred from his remarks as to the male characters, that the sex in question is destitute of thoracic spines:—"La dent des hanches, chez le male, que je n'ai observée chez aucun autre *Rhynchites*, constitue le caractère le plus remarquable de cette espèce. Elle paraît remplacer, dans une certaine mesure, les épines si communes chez les ♂ d'autres espèces du genre," *l. c.*, p. 18. This, however, is erroneous; the tubercle on the coxæ is not sexual, but is specific, existing in the female as well as in the male. Moreover, it is present in other species of the genus; extremely slight in *B. betuleti*, so that it can only be detected by a careful examination; it is well-marked in *B. motschoulskyi*, and strongly prominent in *B. regalis*, Roelofs. The discovery of this character is due to

M. Roelofs, and it is deserving of attention as an assistance in the discrimination of the species of this most difficult genus.

R. venustus was found on a large-leafed *acer*; *R. regalis* on a species of *ampelopsis*.

Byctiscus reversus, n. s.

♂. Supra aurato-purpureus, subtus cum pedibus violaceo-cyaneus; thorace parce punctato, utrinque spina crassa, brevissima armato, elytris fortiter irregulariter punctatis. Long. rostro porrecto, 6 mm.

This is much smaller than *B. venustus*, and, though I have only one example before me, I think it more than probable it will prove to be a distinct species. The very short spines on the side of the thorax, the sparing punctuation of that part, and the fact that it is less elongate, seem to me sufficient for its distinction; there is very little angular dilatation of the rostrum at the sides, and the submental plate is not produced over the mouth. Thus I have little doubt we have here a species intermediate between *B. venustus* and *B. populi*.

Miyanoshta, May, 1880; one specimen.

Byctiscus fausti, n. s.

Minor; infra pedibusque purpureo-cyaneus; supra colore variabilis, vel, auratus vel purpureus vel cyaneus, nitidus fere absque pubescentia, elytris fortiter punctatis, punctis subseriatis. Long. 4—5 mm.

Mas, thorace utrinque minute spinoso.

Similar to *B. populi*, but with a much shorter rostrum, with the antennæ inserted more on the upper surface of the rostrum, so that it is compressed between them and very convex; the antennæ also are nearer to the eyes, and the surface between the eyes and the antennal insertion appears somewhat depressed. In the male the thoracic spines are very small, and the submental plate is not produced. The species, therefore, is not at all closely allied to *B. populi*. The antennæ are very thick, and the basal two joints of the club are transversely quadrate, their margins remarkably rectilinear. The thorax is sparingly punctate, shining; the elytra coarsely punctate, with a few finer punctures on the interstices.*

* The following species is allied both to *B. fausti* and *B. populi*: —*B. parvulus*, n. s. ♂. Minor, infra nigro-cyaneus, supra aurato-
viridis, elytris absque pubescentia, fortius punctatis, thorace utrinque minutissime spinoso. Long. cum rostro, 5 mm. Hab. Siberia

Named in honour of Herr J. Faust, of Liban, in Finland, whose labours on the Rhynchophorous Coleoptera are worthy of high praise.

Byctiscus lacunipennis.*

Rhynchites lacunipennis, Jekel, Ins. Saunders, ii., p. 225; Roelofs, Ann. Soc. Belg., xvii., p. 140.

Attelabus? cicatricosus, Motsch., in Schrenck. Reise Amur., p. 173.

Byctiscus cicatricosus, Faust, Deutsche Ent. Z., xxvi., p. 291.

This species was described in the same year by Motschoulsky and Jekel; and Faust, remarking this, elected to use the name proposed by Motschoulsky; but he failed to notice that Roelofs had previously made the same remark, and preferred the name given by Jekel. The two names being thus both in use, and apparently of simultaneous origin, I think it is proper to follow M. Roelofs' example.

RHYNCHITES.

RHYNCHITES, *Herbst*, Nat. Käf., vii., p. 123.

DICRANOGNATHUS, *Redtenbacher*, Hüg. Kaschm., iv., 2, p. 538.

This genus is numerous in species, and probably exists in all the warm and temperate regions of the large continents of both hemispheres: but the exotic species as yet described are not very numerous. *Dicranognathus* is registered by Lacordaire and the authors of the Munich Catalogue as distinct, but the characters given

orientalis. Allied to *B. populi*, but with shorter rostrum, slender finely punctate thorax, armed in the male with only very minute spines, and with the sculpture of the elytra rather more dense and rugose. The submental plate is produced, and much the same in shape as it is in *B. populi*, but is not so dependent and not so far separated from the mouth.

* The following interesting species, allied to *B. lacunipennis*, greatly extends the geographical range of the genus:—*B. morosus*, n. s. ♀. Cyaneo-violaceus, haud nitidus, thorace dense rugoso; scutello transversim lineare; elytris regulariter, profunde, grosseque seriatim punctatis, interstitiis dense punctatis. Long. 5½ mm. Hab. Laos (Mouhot).

for it apply completely to *Rhynchites*, and a specimen of Redtenbacher's species in our national collection is apparently rather close to the Japanese *R. ursulus*, Roel.

Rhynchites heros.

Rhynchites heros, Roelofs. Ann. Soc. Ent. Belg., xvii., p. 141.

Var. *R. sumptuosus*, Roelofs, C. R. Soc. Ent. Belg., xviii., p. cxxxii.

This is apparently a very variable species, but I see no characters in the small series before me that would make me suppose it consists of more than one species. Mr. Lewis has not obtained the var. *sumptuosus*.

It is a remarkable fact that in this species the apices of the prosternal epimera are slightly separated, the point of the centro-sternal piece penetrating between them at the base, and their hind margins not closing behind this. Thus it will probably form a genus distinct from *R. auratus* and *bacchus*, to which it is in many characters so very similar.

Feeds on *prunus* and *eriobotrya*.

Rhynchites ursulus.

Rhynchites ursulus, Roel., Ann. Soc. Ent. Belg., xvii., p. 142.

I have broken up a specimen of this remarkable species in order to ascertain the structure of the prosternum, which cannot very well be seen in an unbroken example owing to the hair. It proves to be a true *Rhynchites*, with the prosternal epimera larger than usual, and in front of them a very minute centro-sternal piece. It is a curious fact that in this insect, where the colour of the exposed parts of the body is so different from that of other species of *Rhynchites*, the dorsal plates of the hind body when the wing-cases are opened display the blue colour seen in other species on the outer surface.

Rare, and not recently met with. Occurs on a short mountain-oak.

Rhynchites sanguinipennis.

Rhynchites sanguinipennis, Roelofs, Ann. Soc. Ent. Belg., xvii., p. 144.

This has not been met with again, and the male is

unknown. The species is a true *Rhynchites*, with the prosternal epimera joined behind the coxæ.

Rhynchites plumbeus.

Rhynchites plumbeus, Roelofs, Ann. Soc. Ent. Belg., xvii., p. 143.

The British Museum collection includes a specimen of this species from N. China.

Found on a species of *Bryonia*.

Rhynchites amabilis.

Rhynchites amabilis, Roelofs, Ann. Soc. Ent. Belg., xvii., p. 145.

This was described from two individuals, and two others have now been procured: the sexual differences are very slight, but the male has a rather shorter and thicker rostrum. The species is extremely close to *R. parallelinus*, but the head is a little broader, and there is a slight difference in the sculpture of the base of the elytra; in *R. parallelinus* the sutural stria is continued quite straight to the base; in *R. amabilis* it diverges a little at the scutellum, and there is an additional large puncture placed on the interstice just where it begins to get broader.

Faust has described a species, *R. hirticollis*, from Amur-land, which must be very close to *R. amabilis*.

Rhynchites placidus, n. s.

Cæruleus, pube depressa, pallida vestitus; elytris regulariter seriatim punctatis, seriebus subtilibus, ad apicem obsoletis, interstitiis dense punctatis, interstitio primo ad basin punctis nullis (vel tantum uno) adjectis; prothorace dense sat fortiter punctato; capite lato oculis prominulis. Long. eum rostro, 5 mm.

This is closely allied to *R. amabilis*, but is easily distinguished by the more fine sculpture, and the pallid depressed pubescence. *R. levior*, Faust, from East Siberia, must also be closely allied to *R. placidus*, but in the Japanese species the thorax is quite as densely punctate as it is in *R. amabilis* and *parallelinus*.

Three examples; Tokio, Yokohama, Junsai.

Rhynchites funebris, n. s.

Lator, niger, capite brevi sat lato; prothorace densissime punctato, opaco; elytris seriatim punctatis, seriebus subtilibus, interstitiis parce punctatis, nitidis, interstitio primo ad basin punctis nullis (vel tantum uno) adjectis. Long. absque rostro, $5\frac{1}{2}$ mm.; rostri, 2 mm.

This also is allied to *R. amabilis*, but is of large size, entirely black in colour, and has a much finer sculpture. The eyes are not large; the head between them is very deeply and coarsely punctate. The thorax is much narrower than the elytra, rounded at the sides, deeply and very densely punctate, subcarinate along the middle. Elytra with short pubescence, very regular series of fine punctures, and the interstices only finely and quite sparingly punctate.

Sapporo; one example, probably a female.

Rhynchites pilosus.

Rhynchites pilosus, Roelofs, Ann. Soc. Ent. Belg., xvii., p. 145.

Described by M. Roelofs from two individuals. It appears, however, to be the least rare of the Japanese species of the genus, and I have now before me a fine series of examples from various localities, amongst which Yezo is included.

R. pilosus is remarkable from the elongate hairs clothing the surface; these are erect, dark in colour, and by no means dense. The species is not allied to *R. conicus*, but is perhaps more similar to *R. parallelinus*: but it has a narrower thorax, and more scanty punctuation: the series of punctures on the elytra are not placed in striæ, consequently there is not the least elevation of the interstices; the punctures of the interstices are large but not numerous. The difference between the sexes seems very slight: the punctuation of the thorax is denser in some examples; except in this the specimens exhibit little variety.

Rhynchites brevirostris.

Rhynchites brevirostris, Roelofs, Ann. Soc. Ent. Belg., xvii, p. 148.

This also was described from two examples; a male of

it was, however, returned by M. Roelofs as an undescribed species: his remarks, *l. c.*, as to the sexual distinctions require correction. The male is rarely so large as the female, and has a much narrower head, the distance between the eyes being much less than it is in the other sex; the rostrum is more slender, and not at all dilated at the tip, the mandibles being feeble, and the teeth on their outer edge inconspicuous. These characters bring the species very near to our *R. ophthalmicus*, but *brevirostris* has the serial sculpture on the elytra coarser, the setosity shorter, and the antennæ more slender; so that I think it is a distinct species.

Rhynchites assimilis.

Rhynchites assimilis, Roelofs, Ann. Soc. Ent. Belg., xvii., p. 146.

This is nearer to *R. alliariæ* than to any other of our European species, but the setosity is shorter and the sculpture finer: there are several intercalated punctures at the base of the first interstice. The distinctions of the sexes are slight.

Rhynchites cupreus.

Curculio cupreus, L., Syst. Nat., ed. xii., i., pt. 2, p. 608.

Sapporo; one specimen. This insect has been recorded from Siberia as well as Europe: the identity with the European species is not quite certain on this single example, the colour being more purple.

Rhynchites dybofskyi ?.

? *Rhynchites dybofskyi*, Faust, Deutsche Ent. Z., 1877, p. 289.

Cyaneus, elytris violaceis, parce breviterque pubescens; rostro mediocri; prothorace parvo, subcylindrico, crebrius punctato; elytris seriatim fortiter punctatis, interstitiis subconvexis, fortiter punctatis. Long. cum rostro, $6\frac{1}{4}$ mm.

Antennæ rather slender; rostrum about as long as the head and the thorax, the latter only about half as broad as the elytra, the punctures rather small, but deep and numerous, the interstices

shining, not rugulose. Elytra with series of large punctures, as deep behind as in front; the interstices coarsely punctured.

The determination is by no means certain. *R. dybofskyi* appears to have been described from a single male, and was distinguished from *R. cupreus* by the ventral segments not being densely punctate in the male. In our English examples of *R. cupreus* I do not, however, find any sexual difference in the ventral punctuation, and I shall not be surprised if *cupreus* be found to be more variable than has hitherto been supposed; and it may then include perhaps these Siberian and Japanese forms, but the specimens obtained are quite insufficient to decide the question.

Four specimens in bad preservation: one from Tokio, one from Sapporo; also one without locality.

Rhynchites conicus.

Rhynchites conicus, Illig., Mag., vi., p. 306.

Subashiri; Wada-togè, 1st August, 1881. Three examples. This European species has also been found in Siberia.

Rhynchites apertus, n. s.

Minor, viridi-cyaneus, elytris cyaneis; brevissime pubescens; rostro brevi, capite haud lato; prothorace subcylindrico, crebre punctato, sat nitido; elytris seriatim fortiter punctatis, interstitiis subconvexis, parce subtiliter punctatis. Long. cum rostro vix 3 mm.

Rostrum short, in the male only about as long as the head, in the female a little longer; head moderately broad, finely and sparingly punctate. Thorax rather longer than broad, greatly narrower than the elytra, nearly cylindric, rather closely punctate, the punctures neither coarse nor rugulose, the interstices shining. Elytra with series of coarse punctures, with very little punctuation on the narrow subconvex interstices. Legs short and stout, basal joint of the hind tarsi quite short.

This minute species is somewhat near *R. conicus*; the first row of punctures is quite regular at the base, and there are no intercalated punctures.

Six specimens; on the main island, and on Yezo, Kashiwagi, Nagasaki, and Chiuzenji.

Rhynchites apionoides, n. s.

Minor, cyaneo-niger, brevissime pubescens; capite angusto; prothorace parvo, ruguloso; elytris subtiliter seriatim punctatis, interstitiis haud convexis parce subtiliter punctatis. Long. cum rostro, $3\frac{1}{2}$ mm.

Rostrum moderately stout, scarcely longer than the thorax; head narrow, rather long, coarsely and sparingly punctate. Thorax much narrower than the elytra, a little rounded at the sides, about as long as broad, rugose. Elytra with series of rather fine punctures—towards the apex quite fine—the interstices broad, quite flat, sparingly almost seriately punctate. Legs short.

An obscure little insect, not closely allied to any other species; the difference between the sexes seems very slight.

Plain of Fujisan.

Rhynchites singularis.

Rhynchites singularis, Roelofs, Ann. Soc. Ent. Belg., xvii., p. 147.

Although so peculiar in colour and clothing, this species seems structurally near *R. conicus*.

Rhynchites truncatus, n. s.

Brevis, pube brevi, depressa vestitus, niger, prothorace sub-ænescente, elytris plumbeo-cyaneis, capite lætius ænescente; dense punctatus; prothorace lato, oculis prominulis. Long. cum rostro, 4 mm.

Antennæ black, with broad moderately long club. Rostrum rather longer than the thorax. Head large, eyes prominent, widely separated, distant from the thoracic margin, the vertex rather closely punctate. Thorax broad, but much narrower than the elytra, subcircular, densely punctate. Elytra with very regular series of moderately coarse punctures, the interstices rather convex, sparingly punctate. Pygidium exposed; legs rather short, the suture between the first and second ventral segments excessively deep.

This is a very peculiar species, and appears to connect *R. tristis* with the more typical forms of the genus.

Miyanoshita, May, 1880.

Rhynchites tristis ?.

Attelabus tristis, Fab., Ent. Syst., iv., p. 454.

Mr. Lewis obtained a single mutilated male example of an insect closely allied to the European *Rhynchites tristis*, but I think probably distinct therefrom. Faust has described an allied species from East Siberia as *R. depressus*, but I do not think our Japanese insect can possibly be it.

Miyanoshta.

ADERORHINUS, n. g.

Coxæ anteriores elongati. Prosternum post coxas minus breve, epimeris a ligula triangulari separatis. Sutura prima ventrali subobliterata.

This genus has the prosternum formed in a rather different manner to what is usual, the coxæ being placed quite in front, while behind the coxæ the prosternum is longer than usual; the epimera are rather widely separated, and a ligula or tongue projects backwards between them, but is connected with the epimera only at the front part, so that there exists a deep narrow separation, or apparent excision, on each side of the middle. The elytra leave only a portion of the pygidium exposed.

In other respects this insect is peculiar, the rostrum being broad, short, and strongly curved; the maxillæ very large, the submentum also very large, the mentum itself very small: the first and second ventral segments are anchylosed, and are large in comparison with the following segments. There is only one species in the genus, and I do not know any other of the *Rhynchitidæ* that much resembles it. It is allied to *Eugnampthus* by the slender club to the antennæ, and by the ventral segments, but differs strongly from it in appearance, and by the peculiar structure of the apices of the prosternal epimera, as well as by the somewhat shorter basal joint of the hind foot.

Aderorhinus cricerooides.

Rhynchites cricocerooides, Roelofs, Ann. Soc. Ent. Belg., xvii., p. 147.

This is apparently a rare insect, but occurs in Yezô, as well as in the main island, on an evergreen-oak.

EUGNAMPTUS.

This genus has been distinguished from *Rhynchites* hitherto by no very good character, the best being the greater elongation of the basal joint of the posterior tarsi; this is however variable in both of the genera, and cannot be relied on to define the two genera satisfactorily. *Eugnamptus* is, however, a valid genus, and can be distinguished by other more important characters. The centro-sternal piece of the prosternum is very peculiar in form; it is triangular, with the sides a little curvate, and is acuminate behind; it is interposed between the epimera, with which it is soldered by a very oblique suture on each side; the epimera do not meet behind it, though they project farther back than it, and the space separating their apices is of variable width according to the species, being very broad in *E. aurifrons*, quite narrow in *E. flavipes*.

In *Eugnamptus* the first ventral suture is nearly or quite obliterated, and the pygidium is quite covered by the wing-cases, except that it may be distinguished between their rounded and somewhat divergent apices; the eyes are large, the club of the antennæ elongate, slender, and laxly articulated, and the basal joint of the tarsi is elongate.

The genus will probably prove numerous in species in the tropics of both hemispheres, but I do not think the Eastern species will ultimately be associated in the same genus with those of the New World.

Eugnamptus fragilis, n. s.

Subdepressus, læte cyaneus, nitidus, parce longius setosus, antennis rostro pedibusque nigris; elytris seriatim punctatis, interstitiis fere lævigatis, primo ad basin punctis adjectis circiter sex. Long. cum rostro, 5—5½ mm.

Antennæ very slender, club extremely elongate and loosely articulated. Rostrum broad, expanded towards the tip, and nearly as long as the thorax in the female; in the male more slender, only about as long as the head; eyes very large, larger in the male than in the female. Thorax slender, conico-cylindrical, shining, rather sparingly and not coarsely punctate. Elytra elongate, with regular series of punctures, and shining, flat, not punctate interstices. Legs hairy; basal joint of hind tarsus scarcely so long as the three following together.

Osaka, July 7th, 1881; Miyanoshita, May, 1880. One pair. Although not taken together, I have no doubt they are the sexes of one species.

Eugnamptus flavipes, n. s.

Niger, thorace subvirescente, capite læte cupreo, elytris antennisque fusco-testaceis, harum clava pedibusque flavis; corpore supra pedibusque minus dense setosellis. Long. cum rostro, 4½ mm.

The elongate joints of the club of the antennæ are paler than the other joints; the head is sparingly punctate, canaliculate in front; the thorax is subcylindric, longer than broad, coarsely but not rugosely punctate. Elytra with very regular series of coarse punctures, the interstices very slightly convex, impunctate. Ventral segments shining, impunctate, with an elongate, erect, excessively fine scanty pubescence.

Kobé and Fukushima in July, 1881; two specimens.

Eugnamptus aurifrons.

Eugnamptus aurifrons, Roelofs, Ann. Soc. Ent. Belg., xvii., p. 151.

DEPORAUS.

DEPORAUS, *Samouelle*, Ent. Comp., 1819, p. 201.

This genus is entitled to distinction from *Rhynchites*, as has been already stated by Bedel and by Faust. The character they rely on, *viz.*, the exposure of the propygidium, as well as the pygidium, is, however, subject to some exception, as in *D. mannerheimii* and some others the male has only the pygidium exposed. There exists, however, another more important character, for in *Deporaus* the apices of the prosternal epimera are separated by the centro-sternal piece.

Deporaus will probably prove an extensive and varied genus, as I have seen species differing much from one another in appearance and colour, found in the eastern tropics, that must be placed in it.

Faust (*Deutsche Ent. Z.*, xxxi., p. 163) places *Rhynchites tristis* in *Deporaus*. The only certainly authentic example of *R. tristis* at my disposal has the propygidium and part of the pygidium covered by the elytra, and the apices of the epimera are apparently joined; so I have placed the species in *Rhynchites*.

Deporaus unicolor.

Rhynchites unicolor, Roelofs, Ann. Soc. Ent. Belg., xvii., p. 149.

Deporaus affectatus.

Deporaus affectatus, Faust, Deutsche Ent. Z., xxxi., 1887, p. 163.

Herr Faust describes this species from East Siberia, and also records it from Japan on the authority of one specimen. Mr. Lewis has procured two examples that are distinct from *D. unicolor*, and may be Faust's species; they are more elongate, have the punctures in the series on the wing-cases smaller, and the interstices broader; the antennæ are considerably longer and the eyes larger.

Kiga.

Deporaus fuscipennis, n. s.

Angustus, niger, elytris antennarumque basi fuscis, antennarum clava pedibusque flavis. Long. cum rostro, 4 mm.

Quite similar in form to *D. mannerheimi*, but very different in colour. Antennæ very similar in form to those of *mannerheimi*; rostrum of the female slightly shorter. Head elongate, sparingly punctate, with a large impression in front between the eyes. Thorax very slender, cylindric, but a little narrowed in front, sparingly punctate, disc slightly impressed. Elytra with regular series of rather large deep punctures, interstices narrow, very sparingly punctate. Legs clear yellow.

Chiuzenji, August 23rd, 1881. One specimen of the female sex.

Deporaus mannerheimii.

Rhynchites mannerheimii, Hummel, Ess. ent., iii., p. 45, No. 3, pl. i., f. 4, a, b, et iv., p. 4.

R. megacephalus, Germ., Ins. Sp. Nov., p. 187.

Var. *R. planipennis*, Roelofs, Ann. Soc. Ent. Belg., xvii., p. 150.

M. Roelofs seems to have had some doubt as to whether his *R. planipennis* was really distinct from the European species. I can find no character of any importance to distinguish the two, and unite them with but little hesitation; the female of the Japanese form has the rostrum rather longer, so that it may be considered a variety.

According to Bergroth and Bedel the trivial name

mannerheimii is older than *megacephalus*, although it has been usually treated as subsequent.

Deporaus amurensis.

Rhynchites amurensis, Faust, Deutsche Ent. Z., xxvi., p. 285.

Schönfeldt, in his Catalogue Sup., 1888, p. 49, states he has a single example of this species from Tokio.

AULETES.

AULETES, *Schönherr*, Gen. et Spec. Curc., i., 1, p. 243.

I am not acquainted with the typical species, *A. tubicen*, of this genus; it is said to have the claws unappendiculate. If that be the case, the Japanese species here assigned to it will have to be placed in another genus.

Auletes basilaris.

Auletes basilaris (Gyll.), Schön., Curc., v., pt. i., p. 346.

This has not hitherto been recorded from Siberia, but I have examples of it from Amur-land in my collection. Mr. Lewis procured it very sparingly in Japan, at Fukushima, on July 27th, and at Wada-togè on August 1st, 1881.

Auletes puberulus.

Auletes puberulus, Faust, Deutsche Ent. Z., xxvi., 1882, p. 283.

Faust's description was made on an insect found in Amur-land. I refer to it, with some doubt, two specimens in bad preservation, found by Mr. Lewis at Oyama. Though similar to *A. uniformis* in size and colour and pubescence, the species is readily distinguished by the insertion of the antennæ being basal.

Auletes calvus, n. s.

Niger, sat nitidus, fortiter punctatus, antennis minus elongatis, articulis 20—8m rufo-obscuris. Long. cum rostro, 2½ mm.

Rostrum slender, but rather short, with very little sculpture. Antennæ inserted quite at the base of the rostrum. Head shining, coarsely and closely punctate. Thorax much rounded at the sides,

closely and coarsely punctate. Elytra also coarsely punctate, the sculpture on the basal part slightly granular.

Ogura lake, July 1st, 1881 ; a single specimen.

This insect is without any pubescence on the upper surface: it is possible, as I have only one example to judge from, that this may be due to abrasion, but I do not think so; even if that should prove to be the case, the species may be distinguished from the preceding by its smaller size, rather shorter rostrum, antennæ, and thorax. In *A. calvus* the ninth and tenth joints of the antennæ are transverse; in *A. puberulus* this is not the case. The prosternal epimera are, I think, connected together behind the coxæ.

Auletes submaculatus, n. s.

Corpore subtus, capite rostroque nigris, thorace rufo-testaceo, elytris testaceis, pube depressa subvariegatis. Long. cum rostro, $4\frac{1}{2}$ mm.

Rostrum slender; antennæ long and slender, blackish, the bases of each of the middle joints largely yellow. Thorax excessively densely punctate, so as to be almost rugose, but the punctuation is not coarse. Elytra subasperately, but finely sculptured, clothed with a depressed pallid pubescence over a broad space at the base, then bare across the middle, and on each in front of the apex with an irregular ring of pallid pubescence. Legs yellow, apices of the tarsi fuscous. Claws appendiculate.

Of this very distinct species only a single example was found; it is somewhat immature. August 27th, 1881.

Auletes fumigatus.

Auletes fumigatus, Roelofs, Ann. Soc. Ent. Belg., xvii., p. 151.

Auletes testaceus.

Auletes testaceus, Roelofs, l. c., p. 152.

AULETOBIUS.

DESBROCHERS, *L'Abeille*, v., p. 396.

This genus appears to me entitled to distinction from *Auletes*. The rostrum is broader, the antennæ inserted some distance in front of its base, and in addition, in all

the species I have examined, viz., *A. politus*, *A. maculipennis*, *A. pubescens*, and *A. uniformis*, the prosternal epimera do not meet behind, whereas in *Auletes* they do. I do not understand for what reason the author, when establishing the genus, placed *A. basilaris* in it, as it does not agree with the characters he ascribed to *Auletobius*.

Auletobius uniformis.

Auletes uniformis, Roelofs, Ann. Soc. Ent. Belg., xvii.,
p. 152.